

## ABSTRACT

A high-speed maximum likelihood sequence estimation method and device. The method includes identifying candidate paths through a state trellis based on a group of observed data, where each candidate path corresponds to a best path through a trellis beginning at one of a possible prior states (and corresponding prior data bit or bits), and  
5 then selecting one of the paths based on candidate sequence selection information, typically prior state decisions (e.g., data symbols in the form of one or more bits). The path selection, in turn, provides decoding of symbols and data bit information for use in selecting one of the candidate paths in a subsequent stage.